

CLAIMS

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1. A connector for interconnecting or mutually isolating two or more circuits, comprising first and second interengageable connector elements each of which is connected in use to a respective circuit and at least one of which supports a first contact connected to the respective circuit and a displaceable contact holder carrying interconnected second and third contacts, the contact holder being displaceable between a first position in which the first and second contacts are separated and a second position in which the first and second contacts are interconnected, wherein the connector elements are formed such that on interengagement the contact holder is displaced from the first to the second position after the third contact is interconnected with a contact of the other connector element, and such that on disengagement the contact holder is displaced from the second to the first position, the contacts being arranged such that on disengagement the first and second contacts separate before the third contact is separated from the said contact of the other connector element and such that when separated the first and second contacts are located within a closed chamber defined within the said at least one connector element, means being provided for locking the or each contact holder to the said contact of the other connector elements unless the first and second contacts are separated.

2. A connector according to claim 1, wherein each connector element supports a respective first contact and a respective displaceable contact holder carrying interconnected second and third contacts such that on interengagement of the connector elements the third contacts are interconnected.

3. A connector according to claim 1 or 2, wherein means are provided to prevent the or each contact holder being blown out of the associated connector element.

4. A connector according to claim 3, wherein the preventing means comprises a pin received in a slot formed in the contact holder.

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5. A connector according to any preceding claim, wherein the or each contact holder is slidable in a bore such that the closed chamber is defined between the contact holder and walls of the bore.
6. A connector according to any preceding claim, wherein the means for locking the or each contact holder to the said contact of the other connector elements comprise one or more locking balls which are retained in locking engagement between the connector element and the contact holder unless the contact holder is in the first position.
7. A connector according to any preceding claim, comprising means for locking the or each contact holder in the first position when the contact elements are separated.
8. A connector according to claim 7, wherein the locking means maintain the or each contact holder in the first position unless the contact elements are interengaged.
9. A connector according to claim 8, wherein the locking means comprise a spring-biased slider displaceable as a result of interengagement of the connector elements from one position in which it retains one or more locking balls in locking engagement between the connector element and the contact holder with the contact holder in the first position and a further position in which the or each locking ball is released and the contact holder is displaceable to the second position.
10. A connector substantially as hereinbefore described with reference to the accompanying drawings.

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